

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 28, 2000, 12:23:32 ; Search time 42.88 Seconds
(without alignments)
196.833 Million cell updates/sec

Title: US-09-157-984-1

Perfect score: 731
Sequence: 1 KADDFHNGEYSVCSEEHM.....RFRINACVCVLSRNSWRH 133

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Archived: 182106 seqs, 63460219 residues

Total number of hits satisfying chosen parameters: 182106

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

1: PIR_65: *
2: PIR1: *
3: PIR2: *
4: PIR3: *
5: PIR4: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	429	58.7	286	2	neurotrophin-6 - s
2	419.5	57.4	194	2	nerve growth facto
3	386.5	52.9	243	2	nerve growth facto
4	382.5	52.3	235	2	nerve growth facto
5	379.5	51.9	307	1	nerve growth facto
6	373.5	51.1	245	2	beta-nerve growth
7	368.5	50.4	229	2	nerve growth facto
8	368.5	50.4	286	1	nerve growth facto
9	362.5	49.6	303	1	nerve growth facto
10	362.5	49.6	241	2	nerve growth facto
11	361.5	49.5	125	2	nerve growth facto
12	355.5	48.6	117	2	nerve growth facto
13	341.5	46.7	243	2	neurotrophin-3 pre
14	321	43.9	257	2	neurotrophin-3 pre
15	318	43.5	257	2	neurotrophin-3 pre
16	318	43.5	258	2	neurotrophin-3 pre
17	318	43.5	282	2	hippocampus-derive
18	313	42.8	116	1	nerve growth facto
19	311	42.5	116	2	nerve growth facto
20	311	42.5	246	2	nerve growth facto
21	259	35.4	247	2	brain-derived neur
22	259	35.4	249	2	brain-derived neur
23	259	35.4	249	2	brain-derived neur
24	259	35.4	249	2	brain-derived neur
25	258	35.3	252	2	brain-derived neur
26	258	35.3	252	2	brain-derived neur
27	249	34.1	114	2	brain-derived neur
28	245	33.5	114	2	brain-derived neur
29	244	33.4	269	2	brain-derived neur

30	236	32.3	209	2	neurotrophin-4 pre
31	231	31.6	230	2	neurotrophin-4 pre
32	217	29.7	216	2	neurotrophin-4 pre
33	79.5	10.9	2946	2	hypothetical prote
34	77	10.5	1081	2	histidine kinase h
35	77	10.5	1081	2	histidine kinase h
36	77	10.5	1081	2	histidine kinase h
37	76.5	10.5	1081	2	histidine kinase h
38	73.5	10.1	1146	1	pol polypeptide (c
39	73.5	10.1	1146	1	pol polypeptide (c
40	73	10.0	1281	2	nik-1 protein [imp
41	73	10.0	1298	2	nik-1 protein [imp
42	73	10.0	1298	2	Os-1p - Neurospora
43	72	9.8	212	2	hypothetical prote
44	71	9.7	498	2	adhesin Maif2 NMA2
45	71	9.7	1145	1	pol polypeptide -

ALIGNMENTS

RESULT 1
S50855
neurotrophin-6 - southern platyfish
C:Species: Xiphophorus maculatus (southern platyfish)
C>Date: 14-Jul-1995 #sequence_revision 03-Nov-1995 #text_change 07-May-1999
C:Accession: S50855
R:Goetz, R., Koester, R., Winkler, C., Raulf, F., Lottspeich, F., Scharlt, M.; Thoenen
Nature 372, 266-269, 1994
A>Title: Neurotrophin-6 is a new member of the nerve growth factor family.
A:Reference number: S50855; MUID:95059452
A:Accession: S50855
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-286 <GO>

Query Match 58.7%; Score 429; DB 2; Length 286;
Best local Similarity 63.0%; Pred. No. 2.1e-37;
Matches 85; Conservative 11; Mismatches 27; Indels 12; Gaps 4;

QY 6 LHRGEYVCCSEEHVGNLQADTDLRGNEVTVLPVHVINNVKKOMFEYTCRYSKP--- 62
DB 149 MHREYVCCDSINTWV-NKRRATMDSGNEVTVLSHVYNNKVKQLYETCCR--SPTHR 205
QY 63 -----TGAPKPGQ-GVSGVAGATSSCRGIDNEHNSYCTNVHFFVRLATSYKNOIANRFI 116
DB 206 SSGIVTIGRSGRGKRGKSGKSTGNSGCRGIDSRVNSHCTNDIVSALTVEKQTAMRFI 265
QY 117 RINACVCVLSRNSW 131
DB 266 RINACVCVLSRNSW 280

RESULT 2
I51709
nerve growth factor beta chain precursor - southern platyfish
C:Species: Xiphophorus maculatus (southern platyfish)
C>Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 16-Jul-1999
C:Accession: I51709; S26674
R:Goetz, R.; Raulf, F.; Scharlt, M.
J. Neurochem. 59, 432-442, 1992
A>Title: Brain-derived neurotrophic factor is more highly conserved in structure and
A:Reference number: I51708; MUID:92333301
A:Accession: I51709
A>Status: preliminary; translated from GR/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-194 <GO>
A:Cross-references: EMBL:X59941; NID:965277; PIDN:CAA42566.1; PID:965278
C:Genetics:
A:Gene: NGF
C:Superfamily: nerve growth factor beta chain
C:Keywords: glycoprotein; growth factor

F:1-14/Domain: signal sequence #status predicted <SIG>
 F:15-79/Domain: propeptide #status predicted <PRO>
 F:80-194/Product: nerve growth factor beta chain #status predicted <MAT>
 F:90-155,133-183,143-185/Disulfide bonds: #status predicted
 F:99/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 57.4%; Score 419.5; DB 2; Length 194;
 Best Local Similarity 63.0%; Pred. No. 1.3e-36;
 Matches 80; Conservative 10; Mismatches 22; Indels 15; Gaps 2;

QY 7 HRGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 66
 DB 83 HRGYSVCSVSWVWGKTKATDISEKEVTLPRVINNVKKQYFETTCRVSKEIPGA 137
 QY 67 KPGQGVSGVAGTSSCGRIDNEHNSYCTNVHTFVRALTSYKNOIAMFRIRINACVCL 126
 DB 138 -----SGGSRCLGIDARHMNSHCTNHFVRALTSSENOVAMRLIRINACVCL 187
 QY 127 SRNSWRH 133
 DB 188 SRNSWRH 194

RESULT 3
 A:26311
 A:Residues: 1-243 <EBE>
 C:Species: Gallus gallus (chicken)
 C:Date: 05-Oct-1988 #sequence_revision 05-Oct-1988 #text_change 20-Jun-2000
 C:Accession: A26311; A24857; S00127; S12532
 R:Ebendal, T.; Larhammar, D.; Persson, H.
 EMBL J. 5, 1483-1487, 1986
 A:Title: Structure and expression of the chicken beta nerve growth factor gene.
 A:Reference number: A26311; MUID:86300646
 A:Accession: A26311

A:Molecule type: mRNA
 A:Residues: 1-243 <EBE>
 A:Cross-references: GB:X04003; NID:963697; PIDN:CAA27633.1; PID:g1334740
 R:Wion, D.; Perret, C.; Frechlin, N.; Keller, A.; Behar, G.; Bracher, P.; Auffray, C.
 FEBS Lett. 203, 82-86, 1986
 A:Title: Molecular cloning of the avian beta-nerve growth factor gene: transcription in
 A:Reference number: A24857; MUID:86248129
 A:Accession: A24857

A:Molecule type: DNA
 A:Residues: 118-243 <WIO>
 R:Meiler, R.; Becker-Amte, M.; Goetz, R.; Heumann, R.; Shaw, A.; Thoenen, H.
 EMBL J. 5, 1489-1493, 1986
 A:Title: Molecular cloning of bovine and chick nerve growth factor (NGF): delineation of
 A:Reference number: A26312; MUID:86300647
 A:Accession: S00127

A:Status: preliminary; not compared with conceptual translation
 A:Molecule type: DNA
 A:Residues: 121-243 <MEI>
 A:Cross-references: GB:M6810; NID:g212446; PIDN:AAA4894.1; PID:g212447
 R:Ibanez, C.F.; Hallboeck, F.; Ebendal, T.; Persson, H.
 EMBL J. 9, 1477-1483, 1990
 A:Title: Structure-function studies of nerve growth factor: functional importance of his
 A:Reference number: S12532; MUID:90228346
 A:Accession: S12532

A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 126-243 <IBA>
 C:Superfamily: nerve growth factor beta chain
 C:Keywords: growth factor
 F:1-125/Domain: signal sequence #status predicted <SIG>
 F:126-243/Product: nerve growth factor beta chain #status predicted <MAT>

Query Match 52.9%; Score 386.5; DB 2; Length 243;
 Best Local Similarity 57.3%; Pred. No. 4.9e-33;
 Matches 75; Conservative 12; Mismatches 29; Indels 15; Gaps 1;
 QY 2 ANDFLHGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 61

DB 127 ABPVLHGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 186
 QY 62 PLGAKRPGGVAGTSSCGRIDNEHNSYCTNVHTFVRALTSYKNOIAMFRIRINAA 121
 DB 187 PV-----SSGCRGIDAKHMNSYCTTHTFVRKALTEGKQAAMFRIRIDTA 221
 QY 122 CVCVLSRNSGR 132
 DB 232 CVCVLSRNSGR 242

RESULT 4
 A:514481
 A:Residues: 1-235 <CAR>
 C:Species: Xenopus laevis (African clawed frog)
 C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 16-Jul-1999
 C:Accession: S14481
 R:Carriero, F.; Campion, M.; Cardinali, B.; Pierandrea-Amaldi, P.
 submitted to the EMBL Data Library, October 1990
 A:Description: Structure and expression of the nerve growth gene in Xenopus oocyte an
 A:Reference number: S14481
 A:Accession: S14481

Query Match 52.3%; Score 382.5; DB 2; Length 235;
 Best Local Similarity 59.3%; Pred. No. 1.2e-32;
 Matches 73; Conservative 10; Mismatches 25; Indels 15; Gaps 1;

QY 6 LHRGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 65
 DB 124 LHRGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 181
 QY 66 KPGQGVSGVAGTSSCGRIDNEHNSYCTNVHTFVRALTSYKNOIAMFRIRINACVCL 125
 DB 182 -----SSGCRGIDAKHMNSYCTTHTFVRKALTEGKQAAMFRIRIDTACVCL 228

A:Molecule type: DNA
 A:Residues: 118-243 <WIO>
 R:Meiler, R.; Becker-Amte, M.; Goetz, R.; Heumann, R.; Shaw, A.; Thoenen, H.
 EMBL J. 5, 1489-1493, 1986
 A:Title: Molecular cloning of bovine and chick nerve growth factor (NGF): delineation of
 A:Reference number: A24857; MUID:86248129
 A:Accession: A24857

A:Status: preliminary; not compared with conceptual translation
 A:Molecule type: mRNA
 A:Residues: 1-307 <SCS>
 A:Cross-references: GB:V00836; NID:g53364; PIDN:CAA24221.1; PID:g53365
 R:Ulrich, A.; Gray, A.; Berman, C.; Dull, T.J.
 Nature 303, 821-825, 1983
 A:Title: Human beta-nerve growth factor gene sequence highly homologous to that of mo
 A:Reference number: A93305; MUID:83244969
 A:Accession: A93305

A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-307 <TRD>
 A:Cross-references: GB:K01759; NID:g200051; PIDN:AAA39820.1; PID:g387495
 R:Angelini, R.H.; Haymondson, M.A.; Bradshaw, R.A.
 Biochemistry 12, 100-115, 1973
 A:Title: Amino acid sequences of mouse 2.5s nerve growth factor. II. Isolation and ch

Query Match 52.9%; Score 386.5; DB 2; Length 243;
 Best Local Similarity 57.3%; Pred. No. 4.9e-33;
 Matches 75; Conservative 12; Mismatches 29; Indels 15; Gaps 1;
 QY 2 ANDFLHGEYSVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKMEFTTCRVSKEIPGA 61

A:Reference number: A90366; MUID:73075048

A:Accession: A90366

A:Molecule type: Protein

A:Residues: 188-216; N: 218-305 <ANG>

A:Title: Mouse nerve growth factor gene: Structure and expression.

A:Reference number: 149689; MUID:88038855

A:Accession: 149689

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-307 <RES>

A:Cross-references: GB:M17298; NID:9193493; PIDN:AAA37687.1; PID:9467311; PID:9387171

A:Title: Sequence homology of human and mouse beta-NF subunit genes.

A:Reference number: 152891; MUID:84206565

A:Accession: 152891

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-307 <RE3>

A:Cross-references: GB:M14805; NID:9200053; PIDN:AAA39821.1; PID:9200054

A:Comment: The active molecule is a dimer of identical chains associated by noncovalent

A:Comment: Nerve growth factor is found in submaxillary gland in large quantities and in

A:Comment: nic sensory ganglia in vivo and in vitro and to increase cellular neurotubule levels may

A:Gene: NGFB

A:Introns: 21/2; 62/3

A:Superfamily: nerve growth factor beta chain

A:Keywords: glycoprotein; growth factor; homodimer

F:1-187/Domain: signal sequence and propeptide #status predicted <SIG>

F:188-305/Product: nerve growth factor beta chain #status experimental <MAT>

F:135-186/Binding site: carbohydrate (Asn) (covalent) #status predicted

F:202-267/245-295/255-297/Disulfide bonds: #status experimental

F:232/Binding site: carbohydrate (Asn) (covalent) #status absent

A:Query Match

Best Local Similarity 51.9%; Score 379.5; DB 1; Length 307;

Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;

QY 7 HRGESVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKOMEYETTCRVSKPGAP 66

Db 195 HMGESVCDSESVWGDKTATDIDKEVTLAEVNNINSVROFFEFKCAASNPV--- 251

QY 67 KPGQGSVAGKATSSCRGIDNEHNSYCTNVHFFVRLATSYKNOIAMRFIRINAAVCYVL 126

Db 252 -----ESGCRGIDSKHMNSYCTTHTFVKALITDGOAAMRFIRIDTACVCL 299

QY 127 SRNSWR 132

Db 300 SRKATR 305

RESULT 6

I56570 beta-nerve growth factor - rat (fragment)

C:Species: Rattus norvegicus (Norway rat)

C:Date: 26-Jul-1996 #sequence-revision 26-Jul-1996 #text-change 16-Jul-1999

A:Accession: I56570

A:Title: Rat beta-nerve growth factor sequence and site of synthesis in the adult hippo

A:Reference number: I56570; MUID:89037223

A:Accession: I56570

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-245 <RES>

A:Cross-references: GB:M36589; NID:9205691; PIDN:AAA41697.1; PID:9205692

A:Superfamily: nerve growth factor beta chain

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

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51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Best Local Similarity 56.3%; Pred. No. 1.1e-31; Indels 15; Gaps 1;

Matches 71; Conservative 12; Mismatches 28; Indels 15; Gaps 1;

QY 7 HRGESVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKOMEYETTCRVSKPGAP 66

Db 133 HMGESVCDSESVWGDKTATDIDKEVTLAEVNNINSVROFFEFKCAASNPV--- 189

QY 67 KPGQGSVAGKATSSCRGIDNEHNSYCTNVHFFVRLATSYKNOIAMRFIRINAAVCYVL 126

Db 190 -----ESGCRGIDSKHMNSYCTTHTFVKALITDGOAAMRFIRIDTACVCL 237

QY 127 SRNSWR 132

Db 238 SRKATR 243

RESULT 7

I46614 nerve growth factor B - pig (fragment)

C:Species: Sus scrofa domestica (domestic pig)

C:Date: 21-Feb-1997 #sequence-revision 21-Feb-1997 #text-change 16-Jul-1999

A:Accession: I46614

A:Title: A new marker (NGFB) on pig chromosome 4, isolated by using consensus sequenc

A:Reference number: I46614; MUID:94313891

A:Accession: I46614

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-229 <LAH>

A:Cross-references: GB:L31898; NID:9476732; PIDN:AAA21301.1; PID:9533771

A:Gene: NGFB

A:Superfamily: nerve growth factor beta chain

Query Match

50.4%; Score 368.5; DB 2; Length 229;

Best Local Similarity 56.3%; Pred. No. 3.5e-31; Indels 15; Gaps 1;

Matches 71; Conservative 11; Mismatches 29; Indels 15; Gaps 1;

QY 7 HRGESVCDSEEHVGNLTQATDLRGNEVTLPHVRINNVKKOMEYETTCRVSKPGAP 66

Db 117 HRGESVCDSESVWGDKTATDIDKEVTLAEVNNINSVROFFEFKCAASNPV--- 173

QY 67 KPGQGSVAGKATSSCRGIDNEHNSYCTNVHFFVRLATSYKNOIAMRFIRINAAVCYVL 126

Db 174 -----DSGCRGIDSKHMNSYCTTHTFVKALITDGOAAMRFIRIDTACVCL 221

QY 127 SRNSWR 132

Db 222 SRKAGR 227

RESULT 8

NGHUBM nerve growth factor beta chain precursor - human (fragment)

C:Species: Homo sapiens (man)

C:Date: 19-Feb-1984 #sequence-revision 19-Feb-1984 #text-change 18-Jun-1999

A:Accession: A01399; S10253

A:Title: Human beta-nerve growth factor gene sequence highly homologous to that of mo

A:Reference number: A93305; MUID:83244969

A:Accession: A01399

A:Molecule type: DNA

A:Residues: 1-286 <ULU>

A:Title: A new marker (NGF) on human chromosome 4, isolated by using consensus sequenc

A:Reference number: S10253; MUID:90326556

A:Accession: S10253

A:Status: translation not shown

A:Molecule type: mRNA

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

51.1%; Score 373.5; DB 2; Length 245;

Query Match

A:Residues: 46-286 <BOP>
A:Cross-references: EMBL:X53599; NID:929476; PIDN:CA36832.1; PID:q29477
C:Comment: Nerve growth factor is found in submaxillary gland in large quantities and in
nic sensory ganglia in vivo and in vitro and to increase cellular neurotubule levels may
C:Genetics:
A:Gene: GDB:NGF
A:Cross-references: GDB:120233; OMIM:162030
A:Map position: 1p13.1-1p13.1
A:Introns: 41/3
C:Complex: nerve growth factor is composed of two alpha chains, two beta chains, and two
C:Superfamily: nerve growth factor beta chain
C:Keywords: glycoprotein; growth factor; submandibular gland
F:1-166/Domain: signal sequence and propeptide (fragment) #status predicted <Sig>
F:167-284/Product: nerve growth factor beta chain #status predicted <MAT>
F:26,114,159,211/Binding site: carbohydrate (asn) (covalent) #status predicted
F:181-246,224-274,234-266/Disulfide bonds: #status predicted

Query Match 50.4%; Score 368.5; DB 1; Length 286;
Best Local Similarity 54.2%; Pred. No. 4,5e-31;
Matches 71; Conservative 13; Mismatches 32; Indels 15; Gaps 1;

2 ANDFLHREGYSCVDSSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSK 61
169 SHPIHREGYSCVDSVWVADKTATDIDKKEVTLAEVNNVNNFKQFFETKCDPSPV--- 185
62 PIGAKPGGVSVCDSSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSK 121
229 PIV-----DSGCRGIDSKHNSYCTTHTFVKALTMGQKAAWFRIDTACVCL 273
122 CVCVLSRNSWR 132
274 CVCVLSRAVR 284

RESULT 9
NGRTBA
nerve growth factor beta chain precursor - multimammate rat (Mastomys natalensis)
C:Species: Mastomys natalensis
C>Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 18-Jun-1999
C:Accession: J0343
R:Fahnestock, M.; Bell, R.A.
Gene 69, 257-264, 1988
A:Title: Molecular cloning of a cDNA encoding the nerve growth factor precursor from Mas
A:Reference number: J0343; M0ID:9172070
A:Accession: J0343
A:Molecule type: mRNA
A:Residues: 1-303 <FAH>
Note: It is uncertain whether Met-1 or Met-63 is the initiator
C:Superfamily: nerve growth factor beta chain
C:Keywords: glycoprotein; growth factor; homodimer; submaxillary gland
F:184-176/Product: nerve growth factor beta chain #status predicted <MAT>
F:131,176,226/Binding site: carbohydrate (asn) (covalent) #status predicted
F:198-263,241-291,251-293/Disulfide bonds: #status predicted

Query Match 50.4%; Score 368.5; DB 1; Length 303;
Best Local Similarity 56.5%; Pred. No. 4,8e-31;
Matches 70; Conservative 13; Mismatches 26; Indels 15; Gaps 1;

9 GEYSVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 68
193 GEFVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 68
69 GGGVSVKAGTSSCRGIDNEHNSYCTNHTFVRLTSYKQJAMFIRINACVCL 128
248 -----ESGCRGIDSKHNSYCTTHTFVKALTTDDQAAWFRIDTACVCL 297
129 NSWR 132
298 KAPR 301

RESULT 10
JL0097
nerve growth factor beta chain precursor - guinea pig
C:Species: Cavia porcellus (guinea pig)
C>Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 15-Mar-1996
C:Accession: J0097
R:Schwartz, M.A.; Fisher, D.; Bradshaw, R.A.; Isackson, P.J.
J. Neurochem. 52, 1203-1209, 1989
A:Title: Isolation and sequence of a cDNA clone of beta-nerve growth factor from the
A:Reference number: J0097; M0ID:89177243
A:Accession: J0097
A:Molecule type: mRNA
A:Residues: 1-241 <SCH>
A:Note: the authors translated the codon GCU for residue 214 as Asp
C:Genetics:
A:Gene: Beta-NGF
C:Superfamily: nerve growth factor beta chain
C:Keywords: glycoprotein; growth factor; hormone
F:1-121/Domain: signal sequence and propeptide (fragment) #status predicted <PRO>
F:122-241/Product: nerve growth factor beta chain #status predicted <MAT>
F:146-154/Region: receptor binding #status predicted
F:69,114/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 49.6%; Score 362.5; DB 2; Length 241;
Best Local Similarity 54.0%; Pred. No. 1.6e-30;
Matches 68; Conservative 14; Mismatches 29; Indels 15; Gaps 1;

7 HRGEYSVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 66
129 HMGEYSVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 66
67 KPGGVSVKAGTSSCRGIDNEHNSYCTNHTFVRLTSYKQJAMFIRINACVCL 126
186 -----DSGCRGIDSKHNSYCTTHTFVKALTMGQKAAWFRIDTACVCL 233
127 SRNSWR 132
234 NRKAR 239

RESULT 11
A26312
nerve growth factor beta chain precursor - bovine (fragment)
C:Species: Bos primigenius taurus (cattle)
C>Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 16-Jul-1999
C:Accession: A26312
R:Meier, R.; Becker-Andre, M.; Goeltz, R.; Heumann, R.; Shaw, A.; Thoenen, H.
EMBO J. 5, 1489-1493, 1986
A:Title: Molecular cloning of bovine and chick nerve growth factor (NGF): delineation
A:Reference number: A26312; M0ID:86300647
A:Accession: A26312
A:Molecule type: mRNA
A:Residues: 1-125 <MEI>
A:Cross-references: GB:M26809; NID:9163419; PIDN:AAA30666.1; PID:9163420
C:Comment: Nerve growth factor stimulates neurite outgrowth from sympathetic and embr
C:Superfamily: nerve growth factor beta chain
C:Keywords: growth factor; homodimer; seminal vesicle
F:6-115/Product: nerve growth factor #status predicted <MAT>
F:20-85,63-113,73-115/Disulfide bonds: #status predicted

Query Match 49.5%; Score 361.5; DB 2; Length 125;
Best Local Similarity 56.5%; Pred. No. 9,4e-31;
Matches 70; Conservative 10; Mismatches 29; Indels 15; Gaps 1;

7 HRGEYSVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 66
13 HRGEYSVCDSEHWGNTLQATDLRGNEVTLPHYRINNVYKKOMFEYETTCRVSKPIGAP 66
67 KPGGVSVKAGTSSCRGIDNEHNSYCTNHTFVRLTSYKQJAMFIRINACVCL 126

A>Title: Human and rat brain-derived neurotrophic factor and neurotrophin-3: gene structure
A.Reference number: A40304; MUID:91365361
A.Accession: CA0304

A;Accession: C40304

A;Molecule type: DNA

A;Molecule type: DNA

A;Residues: 1-257 <MAI>

A/Cross-References: GB:M61180; NID:g189302; PIDN:AAA63231.1; PID:g189303
R:Kaisho, Y.: Yoshimura, K.: Nakahama, Y.

FEBS Lett. 266, 187-191, 1990

A; Title: Cloning and expressi

A:Reference number: S10719; MUID:90306351
A:Accession: S10710

h/accession: 310/13
A: Molecule type: mpna

A:Residue. 1=257 <

A: Cross-references: CB:

R:Yancopoulos, G.D.: Ma

Cold Spring Harb. SYMP. Quant. Biol. 55 371-379 1990

A: Title: Neurotrophic factors, their receptors and the cAMP kinase pathway

A;Reference number: A60536; MUID:92111157

A;Accession: C60536

A;Status: not compa

Molecule type: DN

Residues: 1-73, 'Q', 75-77, 'R', 79-108, 'T', 110-257

Genetics:

A;Gene: GDB:NTE3

A; cross-reference

A: Map position: 12p13-12p13

C; superfamily: nerve growth

c; keyword: glycoprotein

F.19-138/Domains: present

E:139-257/Product: neurotrophin-3 #status: predicted <PRO>

E:131/Binding site: carbohydrate (Asn) (count) #statu

COVALENT (ASU) #STATUS

Query Match

Best Local Similarity 47.28; Pred. No. 7.7e-26;

matches	60;	conservative	20;	mismatches	31;	indels	16;	gaps	2;
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7 **HBEFEXCYNDCSEETUICWY E0A3WBT DCNIMMWTU WMMH MUM**

INDELISVCSEHVGNIQAIDLRGNEVIVLPHVRINNKKQMEYETTCRVSPKIGAP 66

[illegible]

----- 202

67 KPGGVSGVKAGTSSCRGTDNEHNSVCTNHTEFVATMSVNO-TATTTCTTTT... 100

122

Db 202 -----KNGCRGIDDKHWSOCKTSQTYVRA.TSFNNKTVGWPTBIDSCVGA 340

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